

APPENDIX A

Location-Based Service Provider Proprietary Interface XML Input

```
<?xml version="1.0" ?>
<LIContent>
  <LIVersion version="1.3" />
  <LIServiceRequest>
    <liTransactionID>1</liTransactionID>
    <LISubscriberID>
      <liSubscriberIDType type="MIN" />
      <liSubscriberIDValue>9195438817</liSubscriberIDValue>
    </LISubscriberID>
    <LISubLocation>
      <liCellID>6250|1|13|1</liCellID>
    </LISubLocation>
    <liServiceType>WHEREAMI</liServiceType>
    <LIRadius>
      <liRadiusValue>5</liRadiusValue>
      <liRadiusUnits units="Miles" />
      <liRadiusType radiusType="Radius" />
    </LIRadius>
    <liNumberBusiness>1</liNumberBusiness>
    <LIContentTypes>
      <liContentItem item="Address" />
      <liContentItem item="Postcode" />
      <liContentItem item="LatLong" />
      <liContentItem item="Phone" />
      <liContentItem item="OtherLocation" />
      <liContentItem item="URL" />
      <liContentItem item="LocDesc" />
      <liContentItem item="BusinessHours" />
      <liContentItem item="Rating" />
      <liContentItem item="CreditCard" />
    </LIContentTypes>
  </LIServiceRequest>
</LIContent>
```

APPENDIX B

Location-Based Service Provider Proprietary Interface XML Output

```
<?xml version="1.0" ?>
<LIContent>
  <LIVersion version="1.3" />
  <LIServiceResponse>
    <liTransactionID>1</liTransactionID>
    <liServiceType>WHEREAMI</liServiceType>
    <liNumberBusiness>1</liNumberBusiness>
    <liZone>80302</liZone>
    <liLocDesc>22ND ST and SPRUCE ST</liLocDesc>
    <LIContentInfo>
      <LIContentService>
        <liAddress>2226 PEARL ST</liAddress>
        <liPostcode>803024630</liPostcode>
        <LILatLong>
          <liLatitude>40020712</liLatitude>
          <liLongitude>-105265400</liLongitude>
          <liUncertainty>0</liUncertainty>
        </LILatLong>
        <liPhone>3034404167</liPhone>
        <liOtherLocation>Boulder, CO, USA</liOtherLocation>
        <liURL>Boulder</liURL>
        <liBusinessHours>CO</liBusinessHours>
        <liRating>Boulder</liRating>
        <liCreditCard>USA</liCreditCard>
      </LIContentService>
    </LIContentInfo>
    <LIReturnStatus>
      <liStatusCode code="0" />
    </LIReturnStatus>
  </LIServiceResponse>
</LIContent>
```

APPENDIX C

Output GML

```
<?xml version="1.0" ?>
<!DOCTYPE LBSLocation SYSTEM "LBSFeature.dtd">
<LBSLocation>
  <timestamp>20010612181549000</timestamp>
  <address>
    <street>2226 PEARL ST</street>
    <otherLocation>Boulder,,CO</otherLocation>
    <zipcode-postalcode>803024630</zipcode-postalcode>
    <intersectionStreet>22ND ST and SPRUCE ST</intersectionStreet>
  </address>
  <geoLocation>
    <locationPoint>
      <Point srsName="EPSG:4326">
        <coordinates>-105.265404,40.020714</coordinates>
      </Point>
      <uncertainty>0</uncertainty>
    </locationPoint>
  </geoLocation>
</LBSLocation>
```

The feature DTD of the location information "LBSFeature.dtd" is:

```
<?xml version="1.0" encoding="UTF-8"?>
<!ENTITY % GMLGEOMETRYDTD SYSTEM "gmlgeometry.dtd">
%GMLGEOMETRYDTD;
<!ELEMENT LBSLocation (description?, name?, boundedBy?, timestamp?,
address?, geoLocation?, property*) >
<!ELEMENT address (street?, otherLocation?, zipcode-postalcode?,
intersectionStreet?) >
<!ELEMENT geoLocation (locationShape?, locationPoint ) >
<!ELEMENT locationShape (omni|arc|ellipse|otherShape) >
<!ATTLIST locationShape units (Miles|KM) "Miles">
<!ELEMENT omni (radius) >
<!ELEMENT arc (innerRadius, outerRadius, startAngle, stopAngle) >
<!ELEMENT ellipse (majorRadius, minorRadius) >
<!ELEMENT otherShape (property*) >
<!ELEMENT locationPoint (Point,uncertainty?) >
<!-- Simple properties hold the property value as parsed character data.
The type of the value is specified by the type attribute, which defaults to
the 'string' type.
The name of the property is specified by the typeName attribute. -->
```

<!ELEMENT property (#PCDATA)>
 <!ATTLIST property
 typeName CDATA #REQUIRED
 type (boolean | integer | real | string) "string" >
 <!ELEMENT timestamp (#PCDATA)>
 <!ELEMENT street (#PCDATA)>
 <!ELEMENT otherLocation (#PCDATA)>
 <!ELEMENT zipcode-postalcode (#PCDATA)>
 <!ELEMENT intersectionStreet (#PCDATA)>
 <!ELEMENT radius (#PCDATA)>
 <!ELEMENT innerRadius (#PCDATA)>
 <!ELEMENT outerRadius (#PCDATA)>
 <!ELEMENT startAngle (#PCDATA)>
 <!ELEMENT stopAngle (#PCDATA)>
 <!ELEMENT majorRadius (#PCDATA)>
 <!ELEMENT minorRadius (#PCDATA)>
 <!ELEMENT uncertainty (#PCDATA)>

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